

MS Journal Appendix for MRI methodology

| Hardware | |
|-----------------------------------|---------|
| Field strength | 3 Tesla |
| Manufacturer | Siemens |
| Model | TimTrio |
| Coil type (e.g. head, surface) | Head |
| Number of coil channels | 32 |

| Acquisition sequence | | |
|---|---------------------------------------|--|
| Type (e.g. FLAIR, DIR, DTI, fMRI) | MPRAGE, FLAIR | |
| Acquisition time | MPRAGE: 4:24 min; FLAIR: 7:38 min | |
| Orientation | HFS | |
| Alignment (e.g. anterior commissure/posterior commissure line) | anterior to posterior commissure line | |
| Voxel size | MPRAGE & FLAIR: 1mm isotropic | |
| TR | MPRAGE: 1900 ms; FLAIR: 6000 ms | |
| TE | MPRAGE: 3.03 ms; FLAIR: 388 ms | |
| TI | MPRAGE: 900 ms; FLAIR: 2100 ms | |
| Flip angle | MPRAGE: 9°; FLAIR: 120° | |
| NEX | MPRAGE & FLAIR: 1 | |
| Field of view | MPRAGE & FLAIR: 256x256x176 | |
| Matrix size | MPRAGE & FLAIR: 256x256 | |
| Parallel imaging | Yes | <input checked="" type="checkbox"/> No |
| If used, parallel imaging method: (e.g. SENSE, GRAPPA) | | |
| Cardiac gating | Yes | <input checked="" type="checkbox"/> No |
| If used, cardiac gating method: (e.g. PPU or ECG) | | |
| Contrast enhancement | Yes | <input checked="" type="checkbox"/> No |

| Acquisition sequence | |
|---|--|
| If used, provide name of contrast agent, dose and timing of scan post-contrast administration | |
| Other parameters: | |

| Image analysis methods and outputs | |
|--|--|
| Lesions | |
| Type (e.g. Gd-enhancing, T2-hyperintense, T1-hypointense) | |
| Analysis method | |
| Analysis software | |
| Output measure (e.g. count or volume [ml]) | |
| Tissue volumes | |
| Type (e.g. whole brain, grey matter, white matter, spinal cord) | |
| Analysis method | |
| Analysis software | |
| Output measure (e.g. absolute tissue volume in ml, tissue volume as a fraction of intracranial volume, percentage change in tissue volumes) | |
| Tissue measures (e.g. MTR, DTI, T1-RT, T2-RT, T2*, T2', ¹H-MRS, perfusion, Na) | |
| Type (e.g. whole brain, grey matter, white matter, spinal cord, normal-appearing grey matter or white matter) | |
| Analysis method | |
| Analysis software | |
| Output measure | |
| Other MRI measures (e.g. functional MRI) | |
| Type (e.g. whole brain, grey matter, white matter, spinal cord, normal-appearing grey matter or white matter) | |
| Analysis method | |
| Analysis software | |
| Output measure | |

Other analysis details: